

IN THE CLAIMS:

Please amend Claims 1, 3-7 and 9 to read as follows. All of the pending claims, including those that are not amended herein, are set forth below.

1. (Currently Amended) A recording method for recording on a recording material using an ink containing a coloring material and a processing liquid for making the coloring material insoluble, comprising:

a step of ejecting onto the recording material the ink, ~~said the~~ ink having a Ka value of a first value; and

a step of applying the processing liquid ~~having a Ka value of a second value larger than the first value;~~ onto the ink ejected on the recording material, the processing liquid having a Ka value of a second value larger than the first value,

wherein the processing liquid is applied onto the recording material after a rapid swell start point is passes after penetration of the ink into the medium so that the processing liquid is overlapped with the ink ejected on the recording material.

2. (Withdrawn) A recording method comprising the steps of:

ejecting onto a recording material ink having a Ka value not less than 1 ($\text{ml} \cdot \text{m}^{-2} \cdot \text{msec}^{-1/2}$); then

applying heat to the ink; and

applying to the ink a processing liquid having a Ka value not less than 1 ($\text{ml} \cdot \text{m}^{-2} \cdot \text{msec}^{-1/2}$).

3. (Currently Amended) A recording method comprising the steps of: according to Claim 1, further comprising a step of applying heat to the ink ejected in said ink ejecting step, ejecting to a recording material ink having a wherein the Ka value of the ink is not more than 1 (ml.m⁻².msec^{-1/2}), and having the ink has a penetration property that increases with heat, and, then applying heat to the ink, and applying to the ink a processing liquid having a the Ka value of the processing liquid is more than not less than 1 (ml.m⁻².msec^{-1/2}).

4. (Currently Amended) An apparatus A recording method according to Claim 1, further comprising the step of applying heat to a reaction product of the ink and the processing liquid after said processing liquid applying step.

5. (Currently Amended) A recording method according to Claim 4 1, wherein the Ka value of the processing liquid is not more than 5 (ml.m⁻².msec^{-1/2}).

6. (Currently Amended) A recording method according to Claim 1, wherein the ink contains pigment.

7. (Currently Amended) A recording method according to Claim 1, wherein the ink includes a black ink and a color ink, the black ink having a Ka value of not more than 3 (ml.m⁻².msec^{-1/2}) and the color ink having a Ka value of not less than 5 (ml.m⁻².msec^{-1/2}), and after application of the processing liquid having a Ka value of not less than 5 (ml.m⁻².msec^{-1/2}), the color ink is ejected.

8. (Withdrawn) A recording method comprising the steps of:
depositing ink containing a coloring material having a polarity onto a recording
material; and then

applying to the ink, a processing liquid having a polarity opposite from that of
said coloring material after a rapid swell start point ts after penetration of the ink onto the
recording material, so that the coloring material in the ink is insolubilized by the processing
liquid at least inside the recording material.

9. (Currently Amended) A recording method according to Claim 1, wherein the
ink and the processing liquid are ejected to the recording material by generating a bubble by
application of thermal energy to the ink and to the processing liquid.

10. (Withdrawn) A recording apparatus comprising:
ink ejecting portion for ejecting onto a recording material ink having a Ka value
of not more than 3 ($\text{ml} \cdot \text{m}^{-2} \cdot \text{msec}^{-1/2}$);
a processing-liquid ejecting portion for applying to the ink deposited on the
recording material, a processing liquid having a Ka value of not less than 5 ($\text{ml} \cdot \text{m}^{-2} \cdot \text{msec}^{-1/2}$) to
insolubilize a coloring material in the ink inside the recording material,
wherein the processing liquid is applied to the ink after the ink is deposited on the
recording material after a rapid swell start point ts passes after penetration of the ink into the
medium.

11. (Original) A recording method according to Claim 1, wherein the Ka of the
processing liquid is not less than 5 ($\text{ml} \cdot \text{m}^{-2} \cdot \text{msec}^{-1/2}$).

12. (Original) A recording method according to Claim 11, wherein the Ka of the ink is not more than 3 (ml.m⁻².msec^{-1/2}).

13. (Original) A recording method according to Claim 11, wherein the Ka of the ink is not more than 1 (ml.m⁻².msec^{-1/2}).

14. (Original) A recording method according to Claim 1, wherein the ink has a first polarity and the processing liquid has a second polarity opposite from the first polarity.

15. (Original) A recording method according to Claim 1, wherein a concentration of a surface-active agent in the processing liquid is not less than the critical micelle concentration of the surface-active agent in pure water.

16. (Original) A recording method according to Claim 1 or 15, wherein a concentration of a surface-active agent in the ink is less than the critical micelle concentration of the surface-active in pure water.